

**ABSTRACT**

The present invention relates to an apparatus for analysing beads and particles, such as polymer beads used e.g. for solid phase synthesis. The apparatus comprises a) a vacuum container comprising at least one planar capture body capable of rotating around a central axis, wherein said capture body comprises a plurality of through-going inlets, and wherein the diameter of each inlet is smaller than the average diameter of the beads to be measured and/or analysed and/or sorted, b) a pressure controlling device capable of controlling the pressure in the vacuum container, c) a device for rotating the vacuum container around the axis of the capture body, and d) a device for measuring at least one property of at least one bead, the apparatus further comprising a capture body support, supporting the capture body, and a vacuum container housing.